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## (54) OPTICAL MODULE AND ITS MANUFACTURE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To excellently reflect light in an optical waveguide in spite of unnecessitating the inserting treatment of a light converging plane lens or the like and to reduce the influence caused by distortion of the side surface of core layers and dust entering the core layers or the like.

**SOLUTION:** An optical module 11A is provided with the optical waveguide having a lower clad layer 26, core layers 19a, 19b and an upper clad layer 28 which are successively formed on a silicon substrate 14, and optical transmission is executed between an optical fiber 12 and optical elements 15, 16 via the core layers 19a, 19b. In the optical module 11A, the core layers 19a, 19b are provided with edge parts in which the plane shape of the core layers consists of a part of an ellipse, and incident ports or exit ports of the optical fiber 12 and the optical elements 15, 16 are respectively arranged in two focal positions of the ellipse or in the vicinity.

